

**TECHNIQUES FOR REPRESENTING 3D SCENES USING FIXED POINT**  
**DATA**

**Abstract of the Disclosure**

5           A quantization transform, corresponding to a geometric object, is determined. The geometric object represents at least a portion of an object in a three-dimensional scene. The quantization transform is suitable for converting a floating point space to a fixed point space, where the floating point space contains floating point data corresponding to the geometric object. The quantization transform is used to convert  
10 floating point data to fixed point data. The floating point data is typically vertices corresponding to the geometric object. Additionally, a quantization transform corresponding to a geometric object is determined. The geometric object represents at least a portion of the three-dimensional scene. The quantization transform is suitable for converting a floating point space to a fixed point space, and the fixed point space contains  
15 one or more fixed point data corresponding to the geometric object. The floating point space defines at least the portion of the three-dimensional scene. At least the quantization transform is applied to the one or more fixed point data.